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United States Department of Agriculture
SERVICE AND REGULATORY ANNOUNCEMENT NO. 123

BUREAU OF AGRICULTURAL ECONOMICS

**OFFICIAL UNITED STATES STANDARDS FOR GRADES OF
LAMB CARCASSES, YEARLING MUTTON, AND MUTTON
CARCASSES**

Effective February 16, 1931
Under act of Congress approved May 27, 1930

UNITED STATES DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, D. C.

By virtue of the authority vested in the Secretary of Agriculture by the provision in the act of Congress entitled "An act making appropriations for the Department of Agriculture for the fiscal year ending June 30, 1931, and for other purposes," approved May 27, 1930 (46 Stat. 392), for acquiring and diffusing among the people of the United States useful information on the subjects connected with the marketing, handling, utilization, grading, transportation, and distributing of farm and nonmanufactured food products, including the demonstration and promotion of the use of uniform standards of classification of American farm products throughout the world, I, Arthur M. Hyde, Secretary of Agriculture, do prescribe and promulgate the following standards for grades of lamb carcasses, yearling mutton, and mutton carcasses, to be known as "Official United States Standards for Grades of Lamb Carcasses, Yearling Mutton, and Mutton Carcasses," and to be in force and effect on and after February 16, 1931, and as long as Congress shall provide the necessary authority therefor, unless amended or superseded by standards hereafter prescribed and promulgated under such authority.



In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed in the city of Washington, this 6th day of February, 1931.

Arthur M. Hyde

Secretary of Agriculture.

Tentative United States grades for dressed lamb, yearling mutton, and mutton were first issued in mimeographed form in November, 1925. After slight changes they were reissued in October, 1926, and in March, 1927, they were published as a part of Department Bulletin No. 1470, entitled "Market Classes and Grades of Dressed Lamb and Mutton."

Late in 1926 and early in 1927 public hearings were held in Portland, Oreg., San Francisco, Salt Lake City, Denver, Fort Worth, Kansas City, Omaha, St. Paul, Chicago, Boston, New York, and Philadelphia. Invitations to these hearings were sent to livestock producers, slaughterers, wholesale and retail meat dealers, agricultural-college workers, and others interested in the livestock and meat industries. The sentiment developed in these hearings was overwhelmingly in favor of the standardized grades as presented. A few criticisms

and suggestions brought out in the hearings were given careful consideration in later revisions of the tentative standards.

The system of standardized grades for dressed meats, of which the following grades are a part, has been used continuously by the Bureau of Agricultural Economics in its wholesale meat market reporting service since 1917. It has also been applied to the grading of millions of pounds of meat purchased by Federal, State, and private institutions and organizations.

DEFINITIONS OF LAMB CARCASSES, YEARLING MUTTON, AND MUTTON CARCASSES

Lamb carcasses.—Lamb carcasses are from young animals of the ovine species of either sex. The maximum age limits are approximately 12 months.

Yearling mutton carcasses.—Yearling mutton carcasses are from animals of the ovine species of either sex that have passed the lamb age and have lost to an appreciable extent the characteristics which are peculiar to lamb, but have not reached, at time of slaughter, that state of maturity when they could be properly classed as mutton. The age limits for this group are from 12 to 24 months.

Mutton carcasses.—Mutton carcasses are from mature animals of the ovine species of either sex. The minimum age of sheep which produce mutton is approximately 24 months at time of slaughter. Wether mutton is derived from males of the ovine species which were castrated early in life before any marked sexual characteristics other than the distinguishing glands had developed. Ewe mutton is derived from females of the ovine species which were at least 20 months old at time of slaughter. In most instances the animal has lambed one or more times. Buck mutton is derived from uncastrated males of the ovine species which at time of slaughter had developed sexual characteristics other than the distinguishing glands.

DEFINITION OF TERMS

The system of grading lamb carcasses, yearling mutton, and mutton carcasses of which the following standards are a part is based on the three factors—conformation, finish, and quality.

The following are definitions of these terms as used in this system of grading.

Conformation.—Conformation is the form, shape, outline, or contour of the carcass. It ranges from the smooth, plump, well-rounded, well-proportioned conformation of the most highly developed carcass produced to the rough, rugged, irregular, disproportioned conformation of the thinnest, boniest, most poorly shaped carcass produced.

Finish.—Finish is fat, and includes the fat which appears on the outer surface of the carcass, on the inner walls of the chest and abdomen, around the kidneys, the seams of fat which sometimes lie between the larger muscles, and the distribution of fat through the muscle tissues. Finish involves not only the quantity of fat but its quality and distribution. Finish ranges from that of the carcass which is almost completely covered both inside and outside with a smooth layer of firm fat, to that of the carcass which is totally lacking in discernible fat.

Quality.—Quality is largely a characteristic of the flesh. It includes texture, tenderness, juiciness, flavor, and color. Quality also involves ratios or proportions of flesh to bone and of fat to lean meat. Quality, therefore, ranges from that of the small-boned, heavily fleshed, highly finished, well-proportioned carcass possessing a very high degree of tenderness, juiciness, and flavor, and very fine fiber or texture, to that of the very large-boned, thinly fleshed, ill-proportioned carcass with an extremely low degree of tenderness, juiciness, and flavor, and extreme coarseness in texture.

SPECIFICATIONS FOR OFFICIAL UNITED STATES STANDARDS FOR GRADES OF LAMB CARCASSES, YEARLING MUTTON, AND MUTTON CARCASSES

LAMB CARCASSES

Lamb carcasses are graded as Prime or No. A1, Choice or No. 1, Good or No. 2, Medium or No. 3, Common or No. 4, and Cull or No. 5.

Prime or No. A1.—Prime or No. A1 grade lamb carcasses are practically ideal in conformation, finish, and quality.

The general outlines of carcasses of this grade are especially attractive, being symmetrical to a marked degree, owing to an abundance of highest grade, palatable flesh, particularly in the regions of the most desired cuts. They are very compact and blocky, have short, thick plump legs, broad backs, thick, well-fleshed loins, ribs, and chucks, well-proportioned breasts, and full, thick flanks. All fats are firm and of excellent quality, but they are not brittle.

Both exterior and interior fats are white or slightly creamy in color and may be tinged with pink. The outer covering of fat is smooth, of moderate depth, evenly distributed over the back and sides, and is free from all bunchiness or excessive deposits. The fat covering is interspersed with strips of pink flesh over the sides and a more even distribution over the lower limits of the breasts and flanks. Interior fats are plentiful but not excessive or wasty, the kidneys being covered to a uniform depth. The lean flesh is firm in all parts, fine grained, and the cut surfaces feel smooth and velvety to the touch. Its color is light pink. The bones are relatively small, soft, and tinged with blood. The break joints of the forelegs show four well-defined, relatively soft, spongy red ridges.

Choice or No. 1.—Choice or No. 1 grade lamb carcasses have excellent conformation, finish, and quality, but are usually slightly deficient in one or more respects as compared with Prime grade carcasses.

Choice grade carcasses are relatively short and compact, have short plump legs, broad thick backs, thick full loins, ribs, and chucks, short plump necks, and well-proportioned flanks and breasts. The general outlines resemble closely those of Prime-grade carcasses. All fats are of good quality, white or slightly creamy. The outer covering of fat is smooth and usually well distributed, but may be deficient in this respect as compared with that on Prime grade carcasses. Loins and ribs are well covered with fat, which recedes to a moderately thin covering over hind legs and shoulders. The fat covering is interspersed with thin strips of lean flesh under the fell, but these are not usually so pro- over the lower limits of the breast and flanks. Interior fats are plentiful in the crotch and over the kidneys but not excessive. The flesh is fine-grained, firm, and has a light pink color. Bones are relatively small, soft, and tinged with blood. The break joint of the forelegs shows four smooth, moist, well-defined red ridges.

Good or No. 2.—Good or No. 2 grade lamb carcasses have good conformation, finish, and quality, but are deficient in one or more respects as compared with Choice-grade carcasses.

Carcasses of this grade are well proportioned and reasonably plump but may be slightly deficient in breadth or depth across the hips, backs, or shoulders. Legs, although short and moderately plump, are more tapering than in carcasses of the higher grades. Loins, ribs, and chucks are thick and full, and necks are short and reasonably plump. There may be slight indications of paunchiness or a slight tendency toward the rangy type, which is indicated by long tapering shanks and somewhat longer body. Bones are soft and tinged with red, both indicating a young animal. The break joints of the forelegs show four well-defined relatively soft red ridges.

The outer covering of fat is smooth and even over the back and hips, diminishing sharply toward the shanks and flanks. The fat covering is interspersed with thin strips of lean flesh under the fell, but these are not usually so pronounced as in Choice and Prime grade carcasses. Interior fats are plentiful, but they are unevenly distributed, being in greatest quantity in the regions of kidneys and crotch. All fats are of good quality and white or slightly creamy in color. The flesh is moderately firm, fine-grained, and light pink in color.

Medium or No. 3.—Medium or No. 3 grade lamb carcasses have fair conformation, finish, and quality.

Carcasses of this grade are usually somewhat angular or rangy in conformation, with moderately long, thin necks and shanks and relatively narrow hips, backs, and shoulders. They have moderately long, tapering legs, and they lack the plumpness of the better grades. Ribs and loins are lacking somewhat in depth of flesh. The break joints of the forelegs show four well-defined soft ridges, but these lack redness to a marked degree.

Carcasses of this grade usually have a moderately thin outer covering of fat, but it is not evenly distributed. There are also some carcasses in this grade that have excessive quantities of fat which disqualify them for a higher

grade. Interior fats are relatively scarce, the kidneys being only partially covered. Small quantities are also found in the crotch. The thin strips of lean under the fell are not nearly so prominent as in the better grades. Heavier carcasses of this grade or those approaching the yearling mutton stage have proportionately greater quantities of fat than have lighter carcasses. The flesh is usually inclined to be soft, spongy, and moderately fine grained, or may be firm in carcasses from heavier and older animals. Its color varies from light to dark pink.

Common or No. 4.—Common or No. 4 grade lamb carcasses are angular and have poor conformation, finish, and quality.

All bones are prominent. Such carcasses are disproportionately long and narrow. The contour of the backbone is plainly visible from neck to tail. Sides are thin, and flanks are thin and flabby. There is little or no exterior or interior fat, slight traces being sometimes found around the kidneys and in the crotch. The heavier and older carcasses frequently have small patches of fat in the regions of the kidneys. This fat usually has a bluish tinge. Bones are usually soft, but they lack the redness of those in better-grade carcasses. The break joints of the forelegs have knuckle ends removed and show four well-defined relatively soft ridges. Because of lack of finish the flesh is soft, spongy, and inclined to be watery. It appears coarse and fibrous. Its color may be dark pink or it may have a brownish tinge.

Cull or No. 5.—Cull or No. 5 grade lamb carcasses are not offered regularly for retail trade and are found in the markets only occasionally. Such carcasses are almost entirely devoid of visible fat and are of the most inferior conformation and quality. Proportion of bone to meat is very high. The flesh is dark, soft, coarse-grained, and owing to lack of nourishment or other causes, appears fibrous to a marked degree.

YEARLING MUTTON CARCASSES

Yearling mutton carcasses are from animals of the ovine species that have passed the lamb age and lost to an appreciable extent the flesh characteristics which are peculiar to lamb, but have not reached, at time of slaughter, that state of maturity when they could be properly classed as mutton. The age limits for this group are from 12 to 24 months. The grades of yearling mutton carcasses are Prime or No. A1, Choice or No. 1, Good or No. 2, Medium or No. 3, Common or No. 4, and Cull or No. 5.

Prime or No. A1.—Prime or No. A1 grade yearling mutton carcasses closely approach the ideal in conformation, finish, and quality.

In many respects carcasses of this grade resemble Prime grade lamb carcasses, differing principally in having somewhat longer bodies in proportion to width and depth, harder and whiter bones, slightly coarser flesh, and greater quantities of exterior and interior fats. They are compact and blocky, have relatively short, plump, well-fleshed legs, broad backs, thick, well-fleshed loins, ribs, and chucks, thick breasts, and flanks. All fats are firm, white or slightly creamy, of excellent quality, and are slightly brittle.

The outer covering of fat is smooth, evenly distributed, of moderate depth, and free from bunchiness. The fat covering is interspersed with strips of medium pink lean flesh over the sides and a more even distribution over the flanks and breasts. Interior fats are plentiful, but not wasty. The kidneys are well covered to a fairly uniform depth, and the interior walls of the ribs have a thin covering. The lean flesh is firm in all parts, relatively fine-grained and medium pink in color. The bones are moderately small and are whiter than in Prime grade lamb carcasses.

Choice or No. 1.—Choice or No. 1 grade yearling mutton carcasses have excellent conformation, finish, and quality. They have relatively short and plump legs, thick loins and ribs, full-fleshed shoulders, thick breasts, and a length of body commensurate with depth and breadth of carcass. Choice-grade carcasses have good breadth in proportion to length, but are relatively heavier in the fore quarters than lamb carcasses of the same grade. They resemble Choice-grade lamb carcasses in many respects, but have proportionately longer bodies, legs, and necks, larger abdominal cavities, and more distended ribs. Compared with lamb, the bones are harder and whiter. Where the foot is removed from the foreleg the end of the bone shows a rough, dry, and comparatively hard surface.

The outer covering of fat is smooth and well distributed over loins, ribs, and shoulders. The fat covering is interspersed with thin strips of dark-pink flesh

under the fell extending over the sides and has a more even distribution over the lower limits of the breasts and flanks. Interior fats are plentiful in the crotch, and the kidneys are well and evenly covered. All fats are of good quality, white or creamy, and inclined to be brittle. The flesh is moderately fine-grained, firm, and medium to dark pink in color.

Good or No. 2.—Good or No. 2 grade yearling mutton carcasses have good conformation, finish, and quality. Such carcasses, although reasonably plump, may be slightly deficient in breadth across the hips, back, and shoulders. Yearling mutton carcasses of this grade resemble Good-grade lamb carcasses in many respects, but have proportionately longer bodies and legs, larger abdominal cavities, more distended ribs, and harder bones. The break joints of the forelegs are rough and dry and show little redness.

The outer covering of fat may be fairly even over the back, loin, and rumps, or it may be slightly rough. Interior fats are plentiful in the crotch, and the kidneys are usually well covered. The flesh is firm, moderately fine grained, and has a deep pink to light red color.

Medium or No. 3.—Medium or No. 3 grade yearling mutton carcasses have fair conformation, finish, and quality. To some extent they lack the fullness or plumpness in legs, loins, and ribs found in good carcasses. Shoulders are usually thinly fleshed and inclined to be rough, necks are long, and legs long and tapering. There is usually a thin covering of fat over the shoulders, a moderate quantity on the loins, ribs, and breasts, and practically none elsewhere on the exterior surface. Except for small quantities around the kidneys and in the crotch, interior fats are scant. Although the flesh is moderately fine-grained, it usually has a relatively high percentage of moisture and varies in color from deep pink to light red.

Common or No. 4.—Common or No. 4 grade yearling mutton carcasses are the lowest grade which are offered regularly for sale by the retail trade. The principal features which distinguish this grade are the marked lack of quality and finish and the high percentage of bone to flesh. Such carcasses have poor conformation. The contour of the backbone is plainly visible from neck to tail. Except for small and uneven patches on the shoulders and back, there are usually not other exterior fats. Interior fats are generally lacking, but there may be slight traces in the region of the kidneys and in the crotch. The flesh is very moist, soft, flabby, and is dark red in color.

Cull or No. 5.—Cull or No. 5 grade yearling mutton carcasses are seldom found in retail markets. The grade is all that the term "cull" implies. All bones are prominent to a marked degree, and both exterior and interior fats are almost totally lacking. The flesh is dark, coarse, soft, and watery.

MUTTON CARCASSES

Mutton carcasses are graded on the basis of conformation, finish, and quality. The grades are Prime or No. A1, Choice or No. 1, Good or No. 2, Medium or No. 3, Common or No. 4, Cull or No. 5.

Prime or No. A1.—Prime or No. A1 grade mutton carcasses are ideal in conformation, finish, and quality. They resemble Prime grade yearling mutton carcasses in many respects, but have harder, whiter bones, darker flesh, and more brittle fats. They are relatively short, compact, and blocky, with a high percentage of meat to bone, and carry a high percentage of the total carcass weight in the legs, loins, and racks. Legs are relatively short, thick, and plump, loins and ribs are deeply fleshed, shoulders are full and compact, breasts are thick, necks relatively short and plump, and flanks full. Bones are somewhat white and hard, but most carcasses of this grade are from relatively young sheep. The feet are severed from the legs at the ankle joint, leaving two smooth hard white ridges.

The outer covering of fat is fairly deep, smooth, and evenly distributed, but not excessive at any point. Interior fats are plentiful in the crotch, over the kidneys, and on the inside of the chest cavity, but not excessive or wasty. All fats are of excellent quality, are creamy white tending to a yellowish tinge, and are brittle.

The strips of lean under the fell on the sides and breasts are prominent, and light red in color. The flesh is firm, fine-grained, and of light red color.

Choice or No. 1.—Choice or No. 1 grade mutton carcasses resemble Choice-grade yearling mutton carcasses rather closely in some respects, but have harder bones, darker flesh, and more brittle fat. Choice-grade carcasses have excellent conformation, finish and quality. They have relatively short, stocky

legs, thick loins and ribs, full fleshy shoulders, and thick breasts. Carcasses of this grade have good breadth in proportion to length and are not rangy or angular. Bones are relatively hard and white. The feet are severed from the legs at the ankle joints. The joints of the forelegs show two smooth, hard, white ridges.

The outer covering of fat is smooth and evenly distributed, has greatest depth over the rumps, loins, and back, but is not excessive at any point. Interior fats are plentiful in the crotch, around the kidneys, and on the interior walls, but are not wasty. All fats are of excellent quality, creamy colored, inclining to a yellowish tinge, and brittle to a marked degree.

The strips of lean under the fell on the sides and breasts are prominent and are light red in color. The flesh is firm, is moderately fine grained, and has a light-red color. Bunchy or excessive quantities of exterior or interior fat bar a carcass from this grade.

Good or No. 2.—Good or No. 2 grade mutton carcasses have good conformation, finish, and quality. Good-grade carcasses, although well-proportioned and moderately plump, may be slightly deficient in breadth or depth across the hips, back, and shoulders as compared with Choice carcasses. Legs are relatively short and thickly fleshed. Good-grade carcasses generally have wider barrels and more distended ribs than Choice carcasses. The grade admits a higher percentage of ewes, and the bones may be slightly harder and more flinty.

The outer covering of fat, although fairly even, varies to some extent and may be slightly excessive on the rumps or deficient on the shoulders, breasts, and flanks. Interior fats are plentiful, but may be slightly deficient or excessive as compared with Choice-grade carcasses, although not to a marked degree. The strips of lean under the fell on the sides are less prominent than on Choice-grade carcasses, but these are well defined. The flesh is firm, slightly coarse-grained, and light to medium red in color.

Medium or No. 3.—Medium or No. 3 grade mutton carcasses have fair conformation, finish, and quality.

Carcasses of this grade lack the fullness or plumpness in legs, loins, and ribs found in carcasses of the better grades. Shoulders are only moderately well fleshed. Carcasses of this grade are relatively narrow through the hips and across the back, and the bones of the spinal column are prominent. Because of these deficiencies such carcasses appear somewhat long and angular. The abdominal cavity is relatively wide, and the curvature of the ribs is very marked, especially in ewe mutton carcasses.

The thin strips of lean flesh under the fell, which are so prominent on well-finished carcasses, are only slightly in evidence on Medium-grade carcasses. There is usually a thin covering of fat over the back, loins, and rumps, but practically none on the legs. The flanks are inclined to be thin. There are moderate quantities of interior fats around the kidneys but not sufficient to cover them, and there are only traces elsewhere. The flesh is moderately firm, but somewhat coarse-grained and medium to dark red in color.

Common or No. 4.—Common or No. 4 grade mutton carcasses are the lowest grade offered regularly for retail trade purposes. They are angular in conformation, thinly fleshed, and lacking in finish. Such carcasses are narrow across the hips, loins, backs, and shoulders. The contour of the backbone is plainly visible from end to end, and other bones are prominent. The grade consists principally of carcasses from old, thin-fleshed ewes. The bones are therefore usually hard, white, and flinty. Small and uneven patches of exterior fat are occasionally found on loins, backs, or shoulders. There are usually traces of fat around the kidneys, but practically no other interior fats. That which is found is of poor quality. The flesh is coarse-grained, inclined to be soft and flabby, and dark red in color.

Cull or No. 5.—Cull or No. 5 grade mutton carcasses are all that the term "cull" implies. They are mostly from old, worn-out, ewes, and are not found on all dressed-meat markets. All bones are prominent and the proportion of bone to flesh is exceedingly high. Carcasses are entirely devoid of visible fat, and the flesh is very unattractive. It is soft, flabby, watery, and very dark in color.

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